

Remarks

In the Final Office Action dated January 10, 2006, Examiner rejected claim 1-2, 4, 7-8, 10, 12, 15, 25-26, 28, 31-32, 34, 36, 39, 41, 43, and 46-47 are rejected under 35 U.S.C. 102(b) as being anticipated by Langwouters et al (Jrnl Biomech. 1984 Vol. 17) in so far as they incorporate the limitations of cancelled claims 49-50 and 52-54. Examiner rejected claims 3, 11, 27, 33, 35, and 42 under 35 U.S.C. 103(a) as being unpatentable over Langewouters et al and further in view of Banks et al (Circulation 7/6/99) or Sarvazyan et al (US5524636). Examiner rejected claims 9, 16-19, 22-23, 40, and 48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Langewouters et al and further in view of Breul et al (Atherosclerosis 127 (1996)) in so far as they incorporate the limitations of cancelled claim 51. Examiner rejected claims 1-6, 8-14, 16-21, 23-30, 32-38, 40-45, and 47-48 under 35 U.S.C. 103(a) as obvious over the combined teachings of Banks et al and Sarvazyan in so far as the incorporate the limitations of cancelled claims 49-54.

By this Amendment, Applicants' Attorney has amended independent claims 1, 10, 17, 25, 34, and 41 to more particularly point out and distinctly claim what Applicants regard as their invention. Applicants' Attorney has not introduced new matter:

By altering the transmural forces across a vessel wall . . . , the changes induced (deformation = changes in position of at least one location within the vessel wall) from physiologic pressure across the arterial wall is altered. By measuring the deformations with altered transmural forces, new and very detailed measurements can be made about the mechanical properties of the vessel.

(pg. 13, ll. 16-21).

The Background Art portion of the application notes that each of the articles cited by Examiner were well known to the inventors prior to the filing of the application. As further noted in the Background Art section, a number of factors limited the success of prior methods of measuring the mechanical property of a vascular wall:

Another factor limiting the success of previous methods is that properties of the vessel as a whole or in cross-section are measured. In the previous reports on the arterial compliance over a wide range of intraluminal pressure (Bank et al., 1999; Kaiser et al., 2001), the compliance was inferred from the geometrical changes such as artery diameter and lumen cross-section based on a numerical model (Langewouters' model; Langewouters et al., 1984).

(pg. 4, ll. 10-15).

In contrast to measuring artery diameter or lumen cross-section, Applicants' invention directly measures local changes in position of at least one location within a vascular wall resulting from physiologic pressures with an altered transmural force and determines a value for the mechanical property based on a measured amount of the local changes.

Claims 2-9, 11-16, 18-24, 26-33, 35-40, and 42-48 depend respectively from independent claims 1, 10, 17, 25, 34, and 41. For at least the reasons claims 1, 10, 17, 25, 34, and 41 are patentable, claims 2-9, 11-16, 18-24, 26-33, 35-40, and 42-48 are patentable. Claims 2-9, 11-16, 18-24, 26-33, 35-40, and 42-48 have additional limitations over their respective independent claims providing further reason that claims 2-9, 11-16, 18-24, 26-33, 35-40, and 42-48 are patentable.

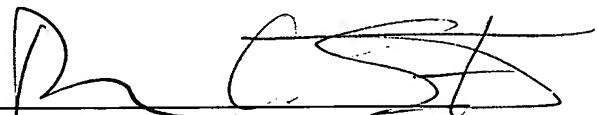
Applicants' Attorney submits that the claims are in a condition for allowance. Applicants' Attorney respectfully requests a notice to that effect. Applicants' Attorney also

invites a telephone conference if the Examiner believes that it will advance the prosecution of this application.

Please charge any additional fees or credit any overpayment as a result of the filing of this paper to our Deposit Account No. 02-3978. A duplicate of this paper is enclosed for that purpose.

Respectfully submitted,

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